

(12) UK Patent Application (19) GB (11) 2 098 778 A

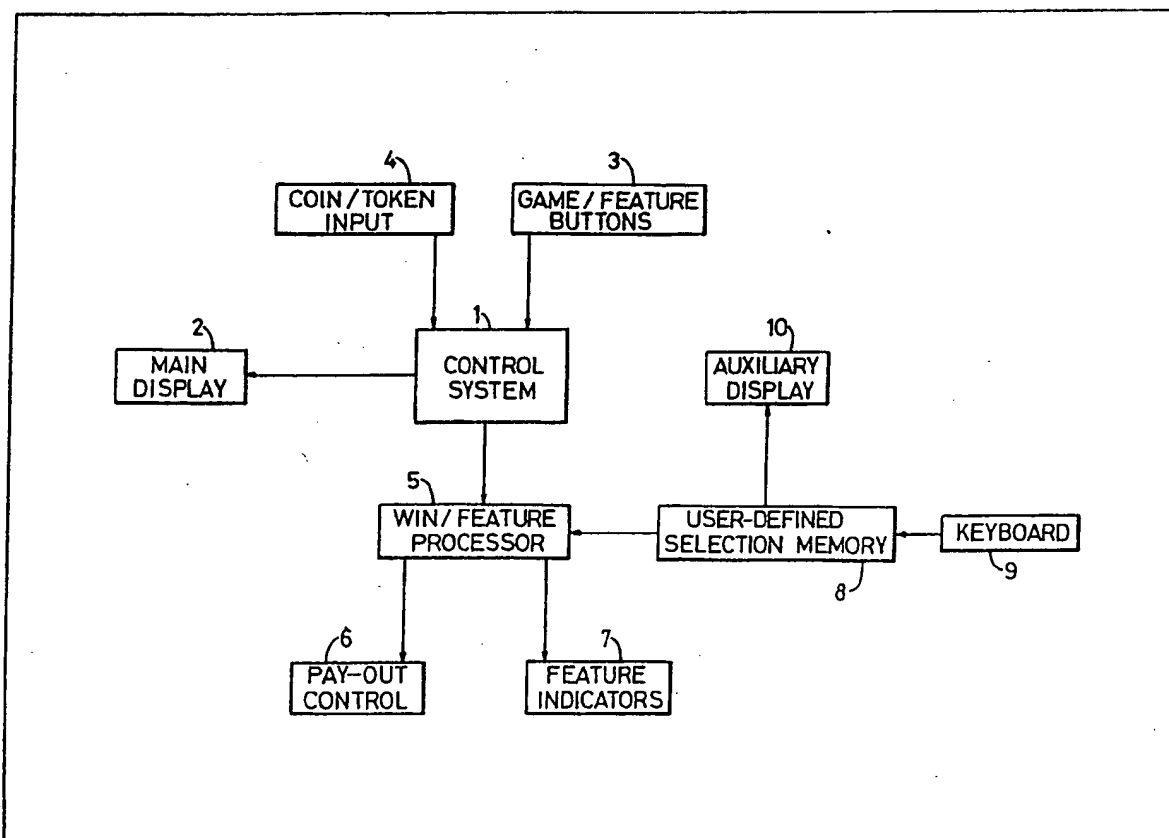
(21) Application No 8209619  
(22) Date of filing 1 Apr 1982  
(30) Priority data  
(31) 8110373  
(32) 2 Apr 1981  
(33) United Kingdom (GB)  
(43) Application published  
24 Nov 1982  
(51) INTCL<sup>3</sup>  
G07F 17/34  
(52) Domestic classification  
G4V 118 AA  
(56) Documents cited  
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(58) Field of search  
G4V  
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(64) Game-playing machines

(57) A fruit machine comprises a control system 1 which supplies drive signals to a main video display 2 in response to actuation of game/feature buttons 3. The drive signals cause a

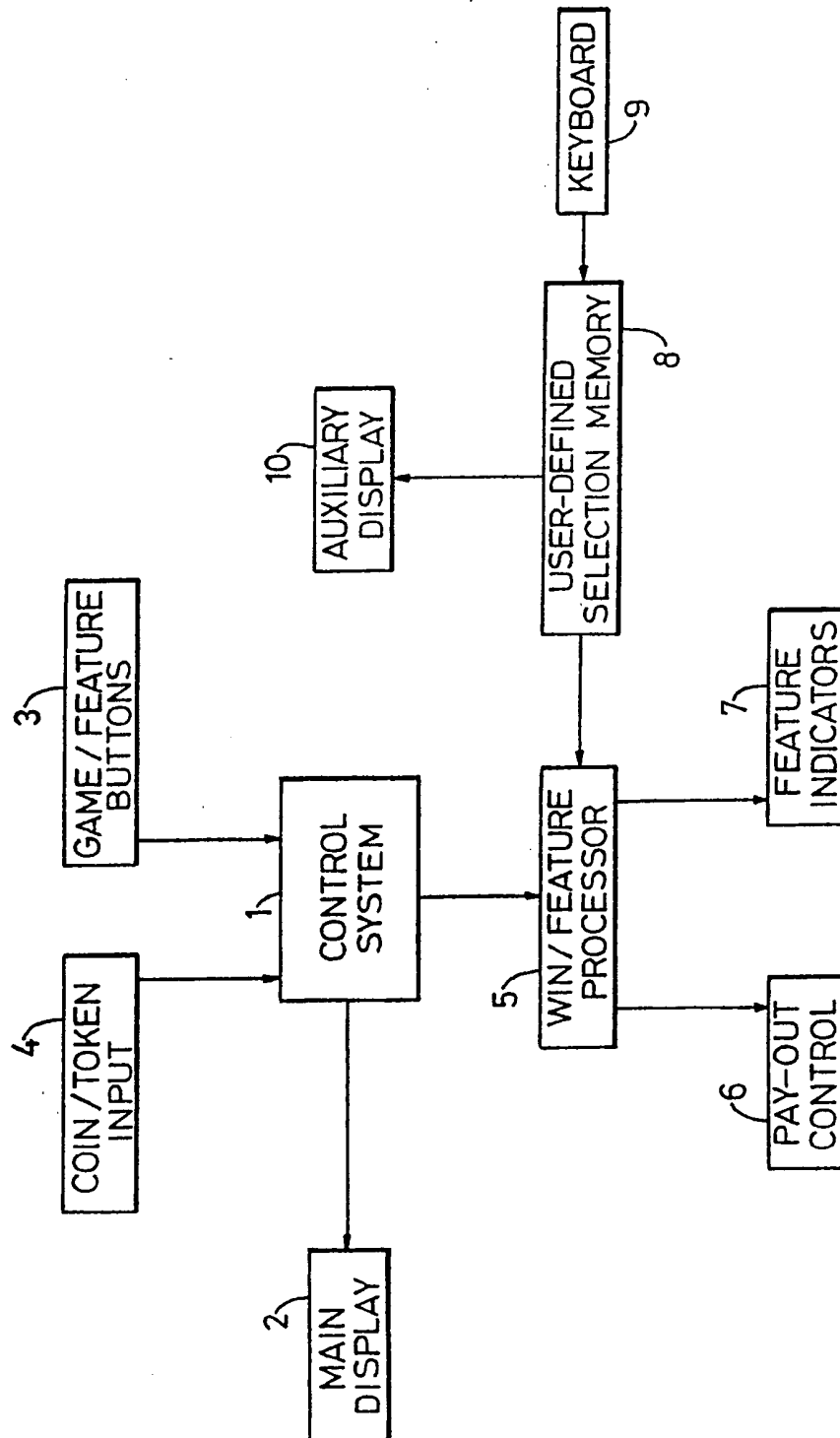
representation of four reels bearing fruit and other symbols to appear to be spun and to come to rest with a combination of symbols in a viewing zone. This combination is compared to a list of winning combinations and a list of feature combinations in a win/feature processor 5, a prize being awarded if a match is found with one of the winning combinations and a game feature being made available to the player if a match is found with one of the feature combinations. The player may be given the option of entering one or more user-defined possible winning or feature combinations into a user-defined selection memory 8 by operating a keyboard 9, and the selected combinations are indicated on an auxiliary video display 10. These combinations are temporarily added to, or substituted for, the permanent winning or feature combinations in the win/feature processor 5 for the purposes of a subsequent game played on the machine.



The drawing originally filed was informal and the print here reproduced is taken from a later filed formal copy.

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## SPECIFICATION

### Game-playing machines

5 This invention relates to game-playing machines, such as those known as "fruit machines".

Fruit machines conventionally incorporate three or more rotary members, such as reels or strips, disposed side-by-side and bearing symbols view-  
10 able in a viewing zone, or a representation of such rotary members, referred to hereafter as "quasi-rotary members", on a video or projection screen. The symbols generally represent various fruits, although it will be understood that the term "fruit machine" may be applied to machines having rotary  
15 members bearing symbols other than fruits. During a game the rotary members are spun or appear to be spun in response to actuation of a game-initiating button by a player after a coin, token or credit has  
20 been paid into the machine, and the rotary members subsequently come to rest in random positions indicated by a combination of symbols in the viewing zone. Alternatively the machine may com-  
25 prise display units, such as an array of lights, adapted to display the symbols, and means for cyclically changing the symbols displayed by the units. The combination of symbols visible in the viewing zone is then compared with a number of prize-winning combinations, and a prize is awarded  
30 if a match is found.

In addition to the normal game a number of game features, such as "hold" and "nudge", are provided. In order to increase the chances of obtaining a prize. One of these features may be made available to the  
35 player if the combination of symbols resulting from the preceding game is one of a number of feature combinations which will generally differ from the prize-winning combinations.

It is an object of the invention to provide such a  
40 machine with an entirely new game facility which serves to improve the player appeal of the machine.

According to the invention, there is provided a game-playing machine comprising a plurality of rotary or quasi-rotary members bearing symbols, or  
45 a plurality of display units adapted to display symbols and capable of being cycled to change the symbols displayed, a game-initiating switch which, when actuated by a player, causes the rotary mem-  
50 bers to be rotated, or the display units to be cycled, and to come to rest with a combination of symbols in a viewing zone, at least one game feature which may be made available to the player after the rotary  
55 members or display units have come to rest, processing means for determining whether the combina-  
60 tion of symbols in the viewing zone is one of a plurality of possible winning combinations for which a prize is to be awarded and/or one of a plurality of possible feature combinations for which a game  
65 feature is to be made available to the player, and selection means for enabling the player to manually select one or more combinations to be treated as possible winning and/or feature combinations by the processing means and/or to select a game feature which is to be made available to the player in  
70 preference to other game features.

The selection means may include an actuating member, for example a "skill" button, which is movable on actuation by the player between an inoperative state and an operative state, and a  
70 control circuit for sensing the speed and/or distance and/or force with which the actuating member is moved between its inoperative and operative states and for supplying a control signal dependent on the sensed speed and/or distance and/or force to select a  
75 possible winning or feature combination or a game feature which is to be available to the player in preference to other game features.

In order that the invention may be more fully understood, a fruit machine in accordance with the  
80 invention will now be described, by way of example, with reference to the accompanying drawing in which the single figure shows a block diagram of the machine.

The illustrated machine comprises a control sys-  
85 tem 1 incorporating a microprocessor and arranged to supply drive signals to a main video display 2 in response to actuation of game/feature buttons 3 by the player after a coin or token has been introduced into a coin/token input 4. The drive signals cause a  
90 representation of four reels bearing fruit and other symbols on the video display 2 to appear to be spun and to come to rest with a combination of symbols in a viewing zone. The control system 1 computes the final combination of symbols in the viewing zone  
95 from the known starting positions of the reels and the drive signals, and this combination is then compared to a plurality of possible winning combinations and a plurality of possible feature combinations stored in a win/feature processor 5. A prize  
100 is awarded by a pay-out control 6 if a match is found with one of the possible winning combinations, and a game feature is made available to the player, as indicated by one or more feature indicators 7, if a match is found with one of the possible feature  
105 combinations.

In addition the machine comprises a user-defined selection memory 8 and a plurality of switches in the form of a membrane-style keyboard 9 associated with this memory 8 and having symbols on its keys  
110 corresponding to the symbols on the reels of the main video display 2. An auxiliary video display 10 is also associated with the memory 8. The player may be given the option, possibly in dependence on the result of a preceding game, of entering one or more  
115 user-defined possible winning or feature combinations into the memory 8 by operating the keyboard 9. The selected combinations are indicated on the auxiliary video display 10 and are temporarily added to, or substituted for, the permanent winning or  
120 feature combinations in the win/feature processor 5 for the purposes of a subsequent game played on the machine.

Numerous variations on the arrangement of this machine, and in the circumstances in which the  
125 user-defined selection feature is made available, are possible. For example the player may also be given the option of selecting the value of the prize associated with a particular winning combination by operating further keys on the keyboard 9. In a further  
130 variant the auxiliary display 10, or even the main

display 2, may be cycled through a number of combinations and one or more combinations may be selected by the player as possible winning or feature combinations by depressing buttons, such as  
 5 the "hold" buttons, associated with the four reels at the appropriate time. Alternatively one or more "skill" buttons of the type disclosed in Specification No. 2,083,934A may be used to select one or more possible winning or feature combinations and option-  
 10 ally also prize values from a list of combinations.

In a further embodiment of the invention the player may be given the option of selecting a particular one of the various game features as a preferred feature which is to be made available to  
 15 the player in preference to the other game features. In this case a user-defined selection memory and associated keyboard and auxiliary display are preferably provided, although the memory will be associated with the control system rather than the win/  
 20 feature processor.

#### CLAIMS

1. A game-playing machine comprising a plural-  
 25 ity of rotary or quasi-rotary members bearing symbols, or a plurality of display units adapted to display symbols and capable of being cycled to change the symbols displayed, a game-initiating switch which, when actuated by a player, causes the rotary mem-  
 30 bers to be rotated, or the display units to be cycled, and to come to rest with a combination of symbols in a viewing zone, at least one game feature which may be made available to the player after the rotary members or display units have come to rest, proces-  
 35 sing means for determining whether the combination of symbols in the viewing zone is one of a plurality of possible winning combinations for which a prize is to be awarded and/or one of a plurality of possible feature combinations for which a game  
 40 feature is to be made available to the player, and selection means for enabling the player to manually select one or more combinations to be treated as possible winning and/or feature combinations by the processing means and/or to select a game feature  
 45 which is to be made available to the player in preference to other game features.

2. A game-playing machine according to claim 1, wherein the selection means incorporates a selection memory and one or more selection switches  
 50 associated with the memory.

3. A game-playing machine according to claim 2, wherein a plurality of selection switches associated with symbols corresponding to symbols on the rotary members or display units are actuable by the  
 55 player to set up a possible winning or feature combination on a display.

4. A game-playing machine according to claim 2, wherein a respective selection switch associated with each of the rotary members or display units is  
 60 actuable by the player to select a respective symbol on the associated rotary member or display unit so as to set up a possible winning or feature combination with the symbols selected on the other rotary members or display units.

65 5. A game-playing machine according to claim 2,

wherein one of a plurality of selection switches associated with the possible game features is actuable to select a game feature which is to be made available to the player in preference to other game  
 70 features.

6. A game-playing machine according to claim 1, wherein the selection means includes an actuating member which is movable on actuation by the player between an inoperative state and an opera-  
 75 tive state, and a control circuit for sensing the speed and/or distance and/or force with which the actuating member is moved between its inoperative and operative states and for supplying a control signal dependent on the sensed speed and/or distance  
 80 and/or force to select a possible winning or feature combination or a game feature which is to be made available to the player in preference to other game features.

7. A game-playing machine according to any  
 85 preceding claim, wherein the selection means incorporate an auxiliary display for displaying the possible winning and/or feature combinations and/or game feature selected.

8. A game-playing machine substantially as  
 90 hereinbefore described with reference to the accompanying drawing.

Printed for Her Majesty's Stationery Office, by Croydon Printing Company Limited, Croydon, Surrey, 1982.  
 Published by The Patent Office, 25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.

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**QUES- ★**

**T05**

**A0949 J/47 ★GB 2098-778**

**Fruit machine with memory for manually selected combinations  
- has extra gaming facility available to user when display reels  
have come to rest**

**QUESTENCO LIMITED 01.04.82-GB-009619 (02.04.81-GB-010378)**

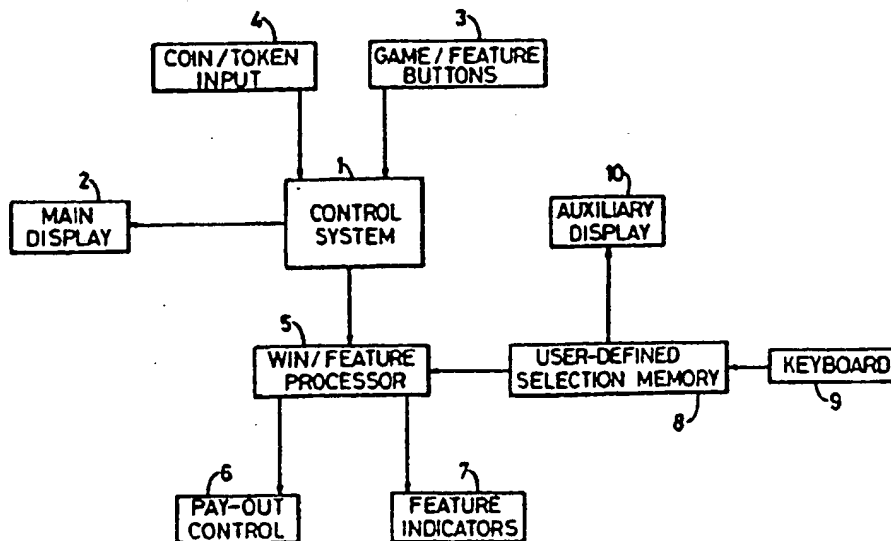
**W04 (24.11.82) G07f-17/34**

**01.04.82 as 009619 (989AR)**

The fruit machine comprises a control system (1) which supplies drive signals to a main video display (2) in response to actuation of game/feature buttons (3). The drive signals cause a representation of four reels bearing fruit and other symbols to appear to be spun and to come to rest with a combination of symbols in a viewing zone. This combination is compared to a list of winning combinations and a list of feature combinations in a win/feature processors (5).

A prize is awarded if a match is found with one of the winning combinations and a game feature is made available to the player if a match is found with one of the feature combinations. The player may be given the option of entering one or more user-defined possible winning or feature combinations into a user-defined selection memory (8) by operating a keyboard. (4pp Dwg.No.1/1)

**T5-H5**



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